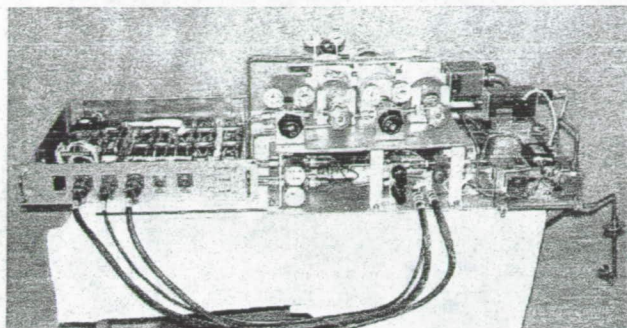


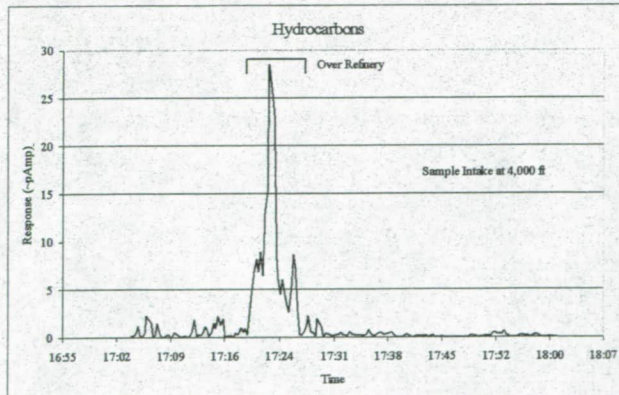
Aircraft-based Volcanic Emissions Mass Spectrometer (AVEMS)

C R. Arkin, G. R. Naylor, C. H. Curley, D. P. Floyd and W. D. Haskell – ASRC Aerospace, ASRC-14
T. P. Griffin, F. W. Adams, and D. W. Follistein – NASA, YA-D2-E2,
Kennedy Space Center, FL 32899

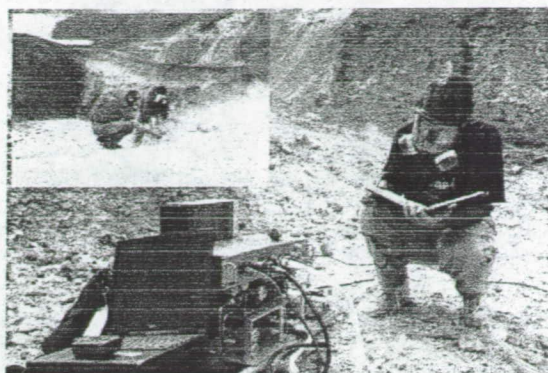
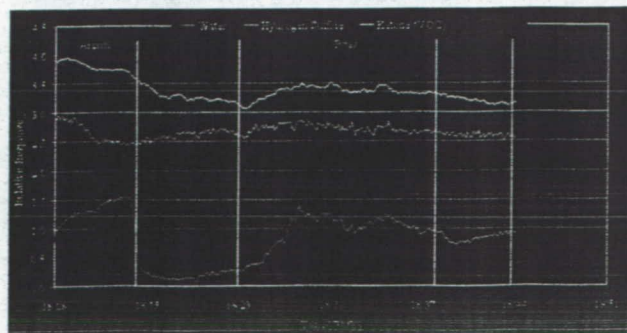
- Quantitative
- Accurate
- Rapid Analysis
- Lightweight
- Power Efficient
- Rugged



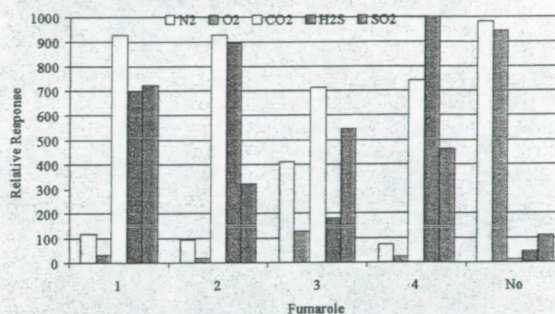
- Linear Quadrupole
- 90,000 cm³
- 47 kg (105 lb)
- 350 W (steady state)
- Rugged (25 to -60°C; 760 – 50 torr)
- 6 s Scan Time
- 30 s Response Time
- Autonomous
- 20 ppm LOQ



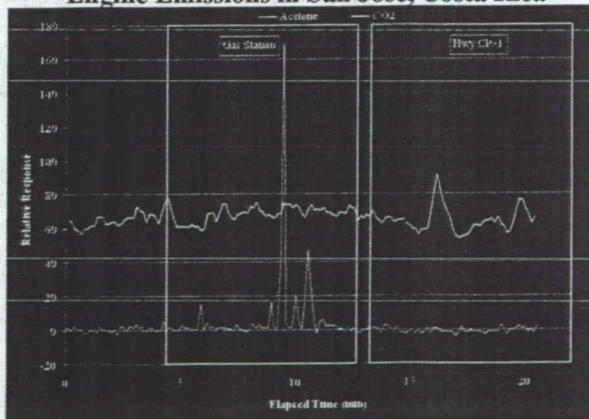
AVEMS Flown over Volcanoes in Costa Rica



AVEMS hand transported to Turrialba Volcano for in-situ gas analysis



Engine Emissions in San Jose, Costa Rica



Carbon Dioxide Concentrations around San Jose, CR

